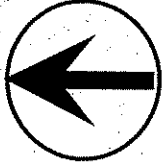


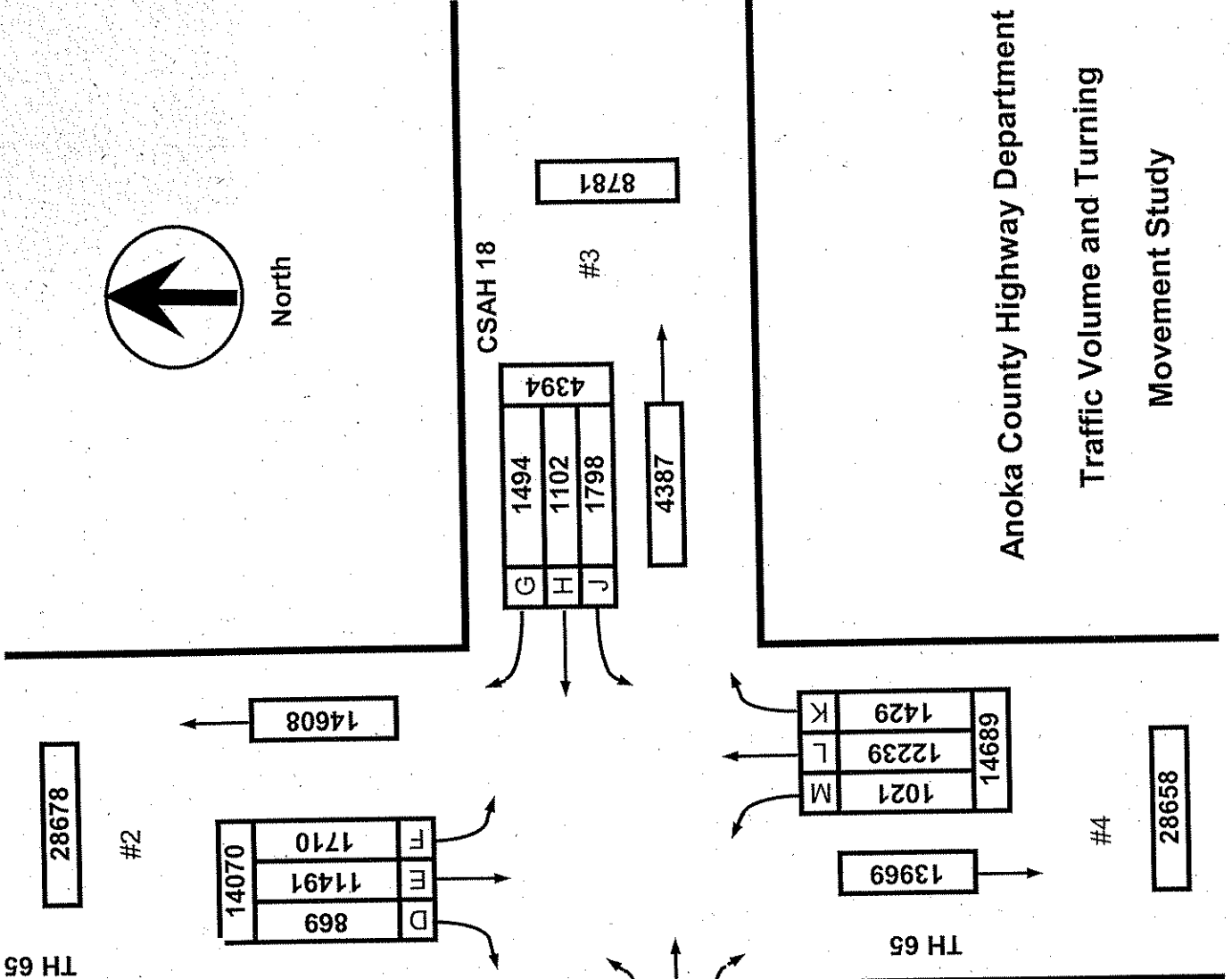
Date : 07/23/07

Count Number : TMC0726

Location : TH 65 (Central Ave.)
 @ CSAH 18 (Crosstown Blvd.)



North



	LANES OF APPROACH			TOTAL
	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	
#1	1	1	0	2
#2	1	1	2	4
#3	1	1	0	2
#4	1	1	2	4

Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : 0726_TMC

Site Code : 07260202

Start Date : 07/23/200

Page No : 2

Weather: Hot and Humid
 Counter: DB-400
 Counted by: Anthony/Isaac

Groups Printed- Unshifted - Bank 1

Start Time	TH 65 Southbound					CSAH 18 Westbound					TH 65 Northbound					CSAH 18 Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total			
19:00	24	131	5	4	160	25	28	25	4	78	25	248	36	9	309	21	25	4	1	50	18	597	615
19:15	20	111	7	2	138	26	30	29	0	85	20	210	39	0	269	15	21	6	0	42	2	534	536
19:30	23	93	9	3	125	21	25	20	0	66	15	182	28	0	225	11	14	7	0	32	3	448	451
19:45	15	96	10	4	121	14	16	22	5	52	15	164	13	4	192	16	20	6	1	42	14	407	421
Total	82	431	31	13	544	86	99	96	9	281	75	804	116	13	995	63	80	23	2	166	37	1986	2023
20:00	22	75	6	4	103	14	24	16	0	54	13	153	12	0	178	19	18	6	0	43	4	378	382
20:15	24	66	4	0	94	17	10	20	0	47	8	162	12	3	182	7	13	6	0	26	3	349	352
20:30	20	67	6	3	93	17	8	14	0	39	14	132	12	2	158	18	18	7	0	43	5	333	338
20:45	25	84	11	1	120	8	10	17	0	35	16	124	13	0	153	13	15	5	0	33	1	341	342
Total	91	292	27	8	410	56	52	67	0	175	51	571	49	5	671	57	64	24	0	145	13	1401	1414
21:00	13	64	4	1	81	11	11	16	0	38	15	107	18	0	140	11	15	5	0	31	1	290	291
21:15	18	78	4	1	100	7	4	7	0	18	9	88	7	0	104	16	13	3	0	32	1	254	255
21:30	11	69	3	3	83	11	3	12	0	26	27	81	14	0	122	13	15	7	0	35	3	266	269
21:45	21	65	15	0	101	17	6	9	0	32	0	80	24	0	104	6	2	5	0	13	0	250	250
Total	63	276	26	5	365	46	24	44	0	114	51	356	63	0	470	46	45	20	0	111	5	1060	1065
22:00	11	53	8	0	72	0	0	0	0	0	0	0	0	0	0	11	10	5	0	26	0	98	98
Grand Total	1710	11491	869	482	14070	1798	1102	1494	65	4394	1021	12239	1429	237	14689	875	1248	680	84	2803	868	35956	36824
Approch %	12.2	81.7	6.2			40.9	25.1	34			7	83.3	9.7			31.2	44.5	24.3					
Total %	4.8	32	2.4		39.1	5	3.1	4.2		12.2	2.8	34	4		40.9	2.4	3.5	1.9		7.8	2.4	97.6	
Unshifted	1710	11491	869		14552	1798	1102	1494		4459	1021	12239	1429		14926	875	1248	680		2887	0	0	36824
% Unshifted	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	0	0	100
Bank 1	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0
% Bank 1	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0

**ANOKA COUNTY HIGHWAY
PC-WARRANTS
TRAFFIC SIGNAL WARRANT ANALYSIS**

Study Name :
Study Date : 07/27/07
Page No. : 1

Signal Warrants - Summary

Major Street Approaches

Northbound: TH 65
Number of Lanes: 2
Approach Speed: 65
Total Approach Volume: 14,689

Southbound: TH 65
Number of Lanes: 2
Approach Speed: 65
Total Approach Volume: 14,070

Minor Street Approaches

Eastbound: CSAH 18
Number of Lanes: 2

Total Approach Volume: 2,803

Westbound: CSAH 18
Number of Lanes: 2

Total Approach Volume: 4,394

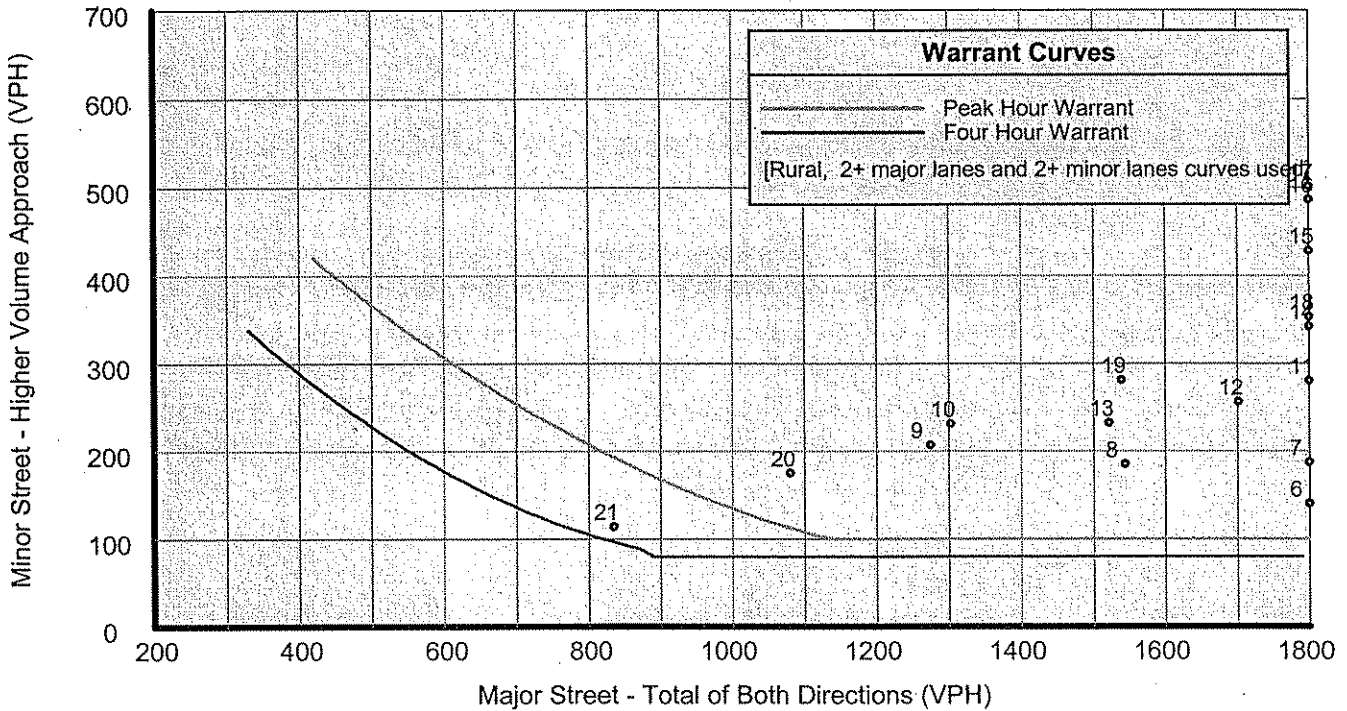
Warrant Summary (Rural values apply.)

Warrant 1 - Eight Hour Vehicular Volumes	Satisfied
Warrant 1A - Minimum Vehicular Volume	Satisfied
Required volumes reached for 15 hours, 8 are needed	
Warrant 1B - Interruption of Continuous Traffic	Satisfied
Required volumes reached for 16 hours, 8 are needed	
Warrant 1 A&B - Combination of Warrants	Satisfied
Required volumes reached for 16 hours, 8 are needed	
Warrant 2 - Four Hour Volumes	Satisfied
Number of hours (16) volumes exceed minimum >= minimum required (4).	
Warrant 3 - Peak Hour	Satisfied
Warrant 3A - Peak Hour Delay	Satisfied
Number of hours (40) volumes exceed minimum >= required (1). Delay data not evaluated.	
Warrant 3B - Peak Hour Volumes	Satisfied
Volumes exceed minimums for at least one hour.	
Warrant 4 - Pedestrian Volumes	Not Evaluated
Warrant 5 - School Crossing	Not Evaluated
Warrant 6 - Coordinated Signal System	Not Evaluated
Warrant 7 - Crash Experience	Not Evaluated
Warrant 8 - Roadway Network	Not Evaluated

ANOKA COUNTY HIGHWAY PC-WARRANTS TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name :
Study Date : 07/27/07
Page No. : 2

Signal Warrants - Summary



Analysis of 8-Hour Volume Warrants:

Hour Begin	Major Total	Higher Minor		War-1A			War-1B			War-1A&B		
		Vol	Dir	Major Crit	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?
00:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
01:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
02:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
03:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
04:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
05:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
06:00	2,314	140	EB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
07:00	2,135	187	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
08:00	1,544	185	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
09:00	1,275	207	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
10:00	1,303	231	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
11:00	1,842	280	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
12:00	1,702	256	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
13:00	1,522	232	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
14:00	2,022	342	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
15:00	2,061	428	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
16:00	2,547	486	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
17:00	2,808	501	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
18:00	2,157	353	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
19:00	1,539	281	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
20:00	1,081	175	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
21:00	835	114	WB	420-Yes	140-No	Major	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
22:00	72	26	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
23:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---

**ANOKA COUNTY HIGHWAY
PC-WARRANTS
TRAFFIC SIGNAL WARRANT ANALYSIS**

Study Name :
Study Date : 07/27/07
Page No. : 1

Multi-Way Stop Warrant Report

Major Street Approaches

Northbound: TH 65
Total Approach Volume: 14,689
Approach Speed: 65

Southbound: TH 65
Total Approach Volume: 14,070
Approach Speed: 65

Minor Street Approaches

Eastbound: CSAH 18
Total Approach Volume: 2,803

Westbound: CSAH 18
Total Approach Volume: 4,394

Warrant Summary

Criteria A - Interim Measure Not Evaluated
If traffic signals are justified, stop signs can be installed as an interim measure.

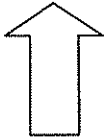
Criteria B - Crash Experience Not Evaluated

Criteria C - Minimum Volumes and Delays Satisfied
Delay data not evaluated
Required volumes reached for 16 hours, 8 are needed

Criteria D - 80% of Volumes, Delays, and Crashes Not Evaluated
Delay data not evaluated
Number of crashes (-1) is less than the minimum required (4).
Required volumes reached for 1 hours, 8 are needed

Analysis of 8 Hour Volume Warrants:

Time	Major Total	Minor Total	Crit C			Crit D		
			Major	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?
00:00 - 01:00	0	0	210-No	140-No	No	240-No	160-No	No
01:00 - 02:00	0	0	210-No	140-No	No	240-No	160-No	No
02:00 - 03:00	0	0	210-No	140-No	No	240-No	160-No	No
03:00 - 04:00	0	0	210-No	140-No	No	240-No	160-No	No
04:00 - 05:00	0	0	210-No	140-No	No	240-No	160-No	No
05:00 - 06:00	0	0	210-No	140-No	No	240-No	160-No	No
06:00 - 07:00	2,314	276	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
07:00 - 08:00	2,135	364	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
08:00 - 09:00	1,544	369	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
09:00 - 10:00	1,275	339	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
10:00 - 11:00	1,303	365	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
11:00 - 12:00	1,842	414	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
12:00 - 13:00	1,702	418	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
13:00 - 14:00	1,522	400	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
14:00 - 15:00	2,022	569	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
15:00 - 16:00	2,061	640	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
16:00 - 17:00	2,547	761	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
17:00 - 18:00	2,808	728	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
18:00 - 19:00	2,157	536	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
19:00 - 20:00	1,539	447	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
20:00 - 21:00	1,081	320	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
21:00 - 22:00	835	225	210-Yes	140-Yes	Both	240-Yes	160-Yes	Both
22:00 - 23:00	72	26	210-No	140-No	No	240-No	160-No	No
23:00 - 00:00	0	0	210-No	140-No	No	240-No	160-No	No



NORTH

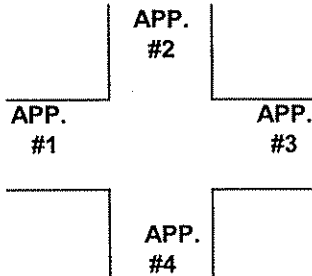
COUNT LOCATION: _____

Th 65 @ CSAH 18

DATE: _____

07/23/2006

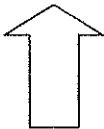
APP. #1 = CSAH 18
APP. #2 = TH 65
APP. #3 = CSAH 18
APP. #4 = TH 65



- HEAVY VEHICLE- ANY VEHICLE HAVING MORE THAN FOUR TIRES TOUCHING THE PAVEMENT
- A. TRUCKS- A HEAVY VEHICLE INVOLVED PRIMARILY IN THE TRANSPORT OF GOODS OR IN THE DELIVERY OF A SERVICE.
 - B. RV- A HEAVY VEHICLE OPERATED BY A PRIVATE MOTORIST AND INVOLVED IN THE TRANSPORT OF RECREATIONAL EQUIPMENT OR FACILITIES.
 - C. BUSES- A HEAVY VEHICLE INVOLVED IN THE TRANSPORTATION OF GROUPS OF PEOPLE.

TIME	PEDESTRIANS					HEAVY VEHICLES		
	APP. #1	APP. #2	APP. #3	APP. #4	15 MIN TOT	TRUCKS	RV	BUS
2:00-2:15PM						9		
2:15-2:30						24		
2:30-2:45						5		
2:45-3:00						30	3	3
HOURLY TOTAL						HOURLY TOTAL		74
3:00-3:15						11		
3:15-3:30						11		
3:30-3:45						11		
3:45-4:00						10		
HOURLY TOTAL						HOURLY TOTAL		43
4:00-4:15						7		
4:15-4:30						25		4
4:30-4:45						7		
4:45-5:00						24		
HOURLY TOTAL						HOURLY TOTAL		67
5:00-5:15						22		
5:15-5:30						21		
5:30-5:45						1		
5:45-6:00						11		
HOURLY TOTAL						HOURLY TOTAL		55
6:00-6:15						7		
6:15-6:30						5		
6:30-6:45						4		
6:45-7:00						2		
HOURLY TOTAL						HOURLY TOTAL		18
7:00-7:15						18		
7:15-7:30						2		
7:30-7:45						3		
7:45-8:00						14		
HOURLY TOTAL						HOURLY TOTAL		37
8:00-8:15						4		
8:15-8:30						3		
8:30-8:45						5		
8:45-9:00						1		
HOURLY TOTAL						HOURLY TOTAL		13
9:00-9:15						1		
9:15-9:30						1		
9:30-9:45						3		
9:45-10:00								
HOURLY TOTAL						HOURLY TOTAL		5
					TOTAL		TOTAL	818

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NORTH

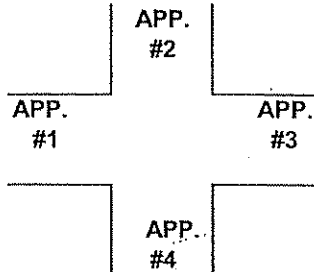
COUNT LOCATION:

Th 65 @ CSAH 18

DATE:

07/25/2007

APP. #1 = CSAH 18
APP. #2 = TH 65
APP. #3 = CSAH 18
APP. #4 = TH 65



- HEAVY VEHICLE- ANY VEHICLE HAVING MORE THAN FOUR TIRES TOUCHING THE PAVEMENT
- A. TRUCKS- A HEAVY VEHICLE INVOLVED PRIMARILY IN THE TRANSPORT OF GOODS OR IN THE DELIVERY OF A SERVICE.
 - B. RV- A HEAVY VEHICLE OPERATED BY A PRIVATE MOTORIST AND INVOLVED IN THE TRANSPORT OF RECREATIONAL EQUIPMENT OR FACILITIES.
 - C. BUSES- A HEAVY VEHICLE INVOLVED IN THE TRANSPORTATION OF GROUPS OF PEOPLE.

TIME	PEDESTRIANS					HEAVY VEHICLES		
	APP. #1	APP. #2	APP. #3	APP. #4	15 MIN TOT	TRUCKS	RV	BUS
6:00-6:15AM						10		
6:15-6:30						13		
6:30-6:45						11		
6:45-7:00						6		
HOURLY TOTAL						HOURLY TOTAL		40
7:00-7:15						18		
7:15-7:30						18		
7:30-7:45						17		
7:45-8:00						22		1
HOURLY TOTAL						HOURLY TOTAL		76
8:00-8:15						17		
8:15-8:30						13	2	
8:30-8:45						14		
8:45-9:00						19		
HOURLY TOTAL						HOURLY TOTAL		65
9:00-9:15						12		
9:15-9:30						13		
9:30-9:45						11		
9:45-10:00						19		
HOURLY TOTAL						HOURLY TOTAL		55
10:00-10:15						7		
10:15-10:30						19		
10:30-10:45						10		
10:45-11:00						17		
HOURLY TOTAL						HOURLY TOTAL		53
11:00-11:15						15		
11:15-11:30						27	1	1
11:30-11:45						31		
11:45-12:00						12		
HOURLY TOTAL						HOURLY TOTAL		87
12:00-12:15						27		
12:15-12:30						4		
12:30-12:45						29		
12:45-1:00						29		
HOURLY TOTAL						HOURLY TOTAL		89
1:00-1:15						22		
1:15-1:30						26		
1:30-1:45						20	1	
1:45-2:00						12		
HOURLY TOTAL						HOURLY TOTAL		81
					TOTAL		TOTAL	506

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